



SUREKEY EXAMINATIONS BOARD

PRIMARY SEVEN PLE PREPARATION SET TWO

2024

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Index No.	EMIS No.						Personal No.		

Candidate's Name:

Candidate's Signature:

School Name:

District Name:

Read the following instructions carefully:

1. Do not forget to write your **school** and **district name** on this paper.
2. This paper has two sections: **A** and **B**. Section **A** has **20** questions and Section **B** has **12** questions. The paper has **15 printed pages** altogether.
3. Answer **all** questions. **All** the working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** working must be done using a **blue** or **black** ball point pen or ink. Any work done in pencil other than graphs and diagrams will **not** be marked.
5. **No calculators** are allowed in the examination room.
6. Unnecessary **changes** in your work and handwriting that cannot easily be read may lead to loss of marks.
7. Do not fill anything in the table indicated: "**For Examiners' Use only**" and boxes inside the question paper.

FOR EXAMINERS USE ONLY		
Qn.No.	MARKS	EXR'S NO.
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

SECTION A: 40 MARKS

Answer **all** questions in this Section

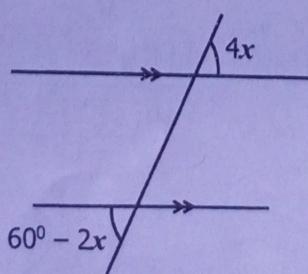
Questions **1** to **20** carry two marks each

1. Workout: $(6 + 2) + 1$.

2. If set $B = \{\text{Composite numbers between } 2 \text{ and } 18\}$, find $n(B)$

3. A total number of CXXIV books were served to primary four during a lesson. How many books were they in Hindu Arabic system?

4. In the figure below, find the value of x in degrees.

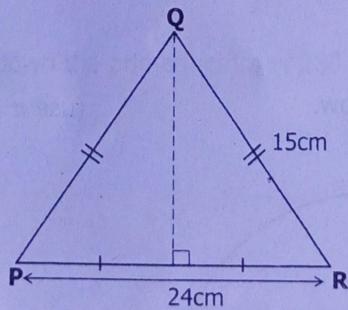


5. Write three quarters of a million in figures.

6. Find the mean of 0 , $2a + 5$, 2 , and 3

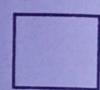
7. Write $4 \frac{3}{10}$ as a decimal number.

a 8. The figure PQR is an isosceles triangle where $PR = 24\text{cm}$ and $QR = 15\text{cm}$. Use it to calculate the length of its height.



9. Solve and find the solution set for $5 < 5x \leq 20$.

10. Express 400cm as a ratio of 6 metres.

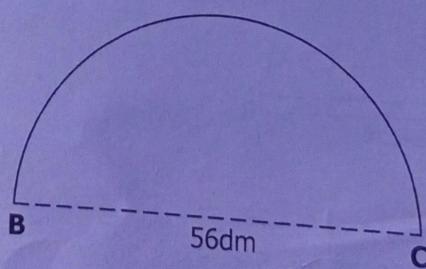


11. Solve for t: $\frac{2t}{5} + t = 28$.

14. A m
at v

12. Find the length of the arc BC below.

(use $\pi = \frac{22}{7}$)



13. Madam Béatrice borrowed sh.160,000 from a village Savings and Credit Cooperative (SACCO) at a simple interest rate of 14% per week for 5 days. What interest was generated by the money she borrowed?
14. A motorcyclist covered 98km in 3 hours 30 minutes. Calculate the speed at which he was riding?
15. Write down the prime factors of 288 in set notation form.



16. Workout. $\frac{5}{12} - \frac{1}{4} + \frac{1}{5}$

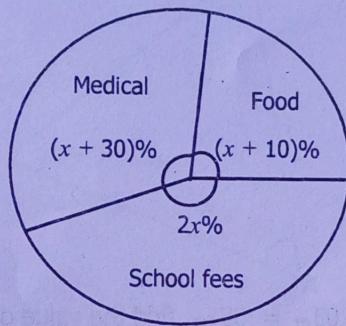
17. Find the product of the value of 4 and the place value of 7 in the number 4379.
- 21.
18. Tap G and Tap H are connected to a water tank. Tap G takes 3 hours to fill the tank while Tap H takes 4 hours to empty the tank. If all taps are opened at once, how long does it take to fill the tank?
19. Solve for t: $3^{2t} \div 81 = 1$.
20. 60% of the pupils in primary five are girls. If there are 24 boys, how many pupils are in primary five ?



SECTION B: 60 MARKS

Answer **all** questions in this section
Marks for each question are indicated in brackets.

21. The pie chart below shows the percentage expenditure of a family's monthly income. Use it to answer the questions that follow.



- (a) Find the value of x . (02 Marks)

- (b) If the family spends sh.930,000 on school fees, how much is spent on food? (03 Marks)

22. The perimeter of a rectangle is 40cm. Find the area of the rectangle if its length is 12cm. (04 marks)

24.



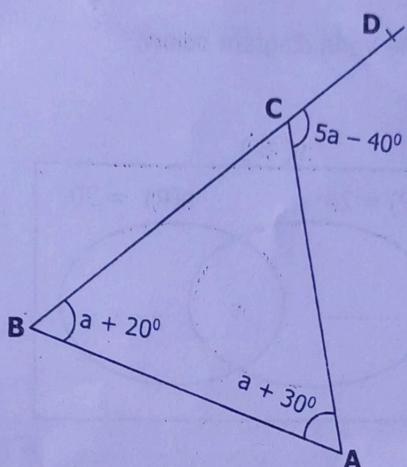
23. a) Given that $203_m = 35_{ten}$, find the value of m. (03 marks)

b) Find the number that has been expanded below; (02 marks)

$$(6 \times 10) + (4 \times \frac{1}{10})$$

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arks)

24. Study the figure below and use it to answer the questions that follow.



(a) Find in degrees, the value of a . (03 Marks)

(b) Workout the size of the angle **BCA**. (02 Marks)



25.

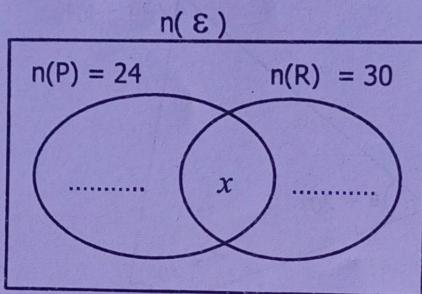
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25. In a class, 24 pupils like posho (P) , 30 like rice (R) while x like both foods.

(a) Complete the Venn diagram below.

(02 Marks)

(a)



(b)

(b) If 48 pupils like only one type of food, find the value of x .

(02 Marks)

27.

M
52

(c) Find the probability of choosing a pupil randomly who does not eat posho to head the class.
(02 Marks)

26. A farmer bought a circular piece of land of radius 28metres which he wants to fence around using poles planted 4metres apart.
- (a) How many poles does the farmer need to fence his land? (03 Marks)

- (b) If each of the poles to be used costs sh,12,000, how much money does the farmer need to fence his land? (02 Marks)

arks)



27. Mubiru is 8 years older than Tonny. Five years ago, their total age was 52 years. How old is Mubiru now? (05 Marks)

(s)

- 30.
- (E)
28. The electricity metre reading of Mr. Bashir's home was 0421 at the beginning of the month and by the end, it was reading 0463.
- (a) How many electricity units did Mr. Bashir's home use for the whole month? (02 Marks)
- (b) If the cost of each electricity unit is sh.3,000, how much money did he pay if he was allowed a 10% discount? (03 Marks)
29. The weight of a Boda boda when two men are seated on it is 330kg. If the weight of the Boda boda alone is 200kg and the second man is 30kg heavier than the first man, find the weight of the second man. (05 Marks)

30. (a) Using a pair of compasses and a sharp pencil only, construct a triangle BPV where length $BP = 7\text{cm}$, $PV = 6\text{cm}$ and angle $BPV = 120^\circ$.
(04 Marks)

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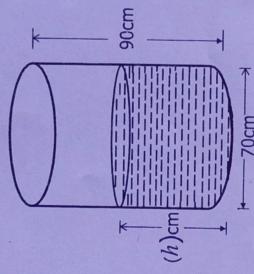
- (b) Measure length BV in centimetres.
(01 Mark)

$BV = \dots\dots\dots\dots\dots \text{cm}$



Turn Over

31. A school uses the water tank of height 90cm and a diameter of 70cm to collect water. If the water needed to fill the tank below is $\frac{1}{3}$ its full capacity;

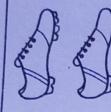


- (a) Find the height of the water in the tank marked h . (02 Marks)
(Use $\pi = \frac{22}{7}$)

- (b) How many litres are needed to fill the tank to full capacity? (04 Marks)

32.

32. The headteacher supplied 24 soccer boots to houses Blue and Red to prepare for sports day. The boots received by each house are indicated in the Picto-graph below.

House	Number of soccer boots
Red	
Blue	

Scale:  represents 3 soccer boots

By show of working, draw in the above table the number of boots received by Blue House.
(04 Marks)



END